

## **Appendix A References**

### **A-1. Required Publications**

Note: References used in this manual are available on interlibrary loan from the Research Library, ATTN: CEWES-IM-MI-R, U.S. Army Engineer Waterways Experiment Station, 3909 Halls Ferry Road, Vicksburg, MS 39180-6199.

**EM 1110-1-1802**  
Geophysical Exploration

**EM 1110-1-1804**  
Geotechnical Investigations

**EM 1110-1-2907**  
Rock Reinforcement

**EM 1110-2-2000**  
Standard Practice for Concrete

**EM 1110-2-2005**  
Standard Practice for Shotcrete

**EM 1110-2-2902**  
Conduits, Culverts and Pipes

**EM 1110-2-3506**  
Grouting Technology

### **A-2. Related Publications**

**ER 415-1-11**  
Biddability, Constructibility and Operability

**ER 1110-1-1801**  
Construction Foundation Report

**ER 1110-1-8100**  
Laboratory Investigations and Testing

**ER 1110-2-100**  
Periodic Inspection and Continuing Evaluation of Completed Civil Works Structures

**ER 1110-2-1150**  
Engineering and Design for Civil Works Projects

**ER 1110-2-1200**  
Plans and Specifications for Civil Works Projects

**ER 1110-2-1806**  
Earthquake Design and Evaluation of Civil Works Projects

**EM 385-1-1**  
Safety and Health Requirements Manual

**EM 1110-1-1003**  
NAVSTAR Global Positioning System Surveying

**EM 1110-1-2908**  
Rock Foundations

**EM 1110-1-3500**  
Chemical Grouting

**EM 1110-2-38**  
Environmental Quality in Design of Civil Works Projects

**EM 1110-2-1908**  
Instrumentation of Embankment Dams and Levees

**EM 1110-2-2102**  
Waterstops and Other Joint Materials

**EM 1110-2-2104**  
Strength Design for Reinforced-Concrete Hydraulic Structures

**EM 1110-2-2105**  
Design of Hydraulic Steel Structures

**EM 1110-2-3001**  
Planning and Design of Hydroelectric Power Plants Structures

**EM 1110-2-3800**  
Systematic Drilling and Blasting for Surface Excavations

**EM 1110-2-4300**  
Instrumentation for Concrete Structures

### **A-3. Related References**

**ACI**  
ACI 506R-90 Guide to Shotcrete.

**Amadei and Pan 1992**

Amadei, B., and Pan, E. 1992. "Gravitational Stresses in Anisotropic Rock Masses with Inclined Strata," *Int. J. Rock Mech. Min. Sci. & Geomech.*, Abstr., Vol. 29: 225-236.

**Amadei, Swolfs, and Savage 1988**

Amadei, B., Swolfs, H. S., and Savage, W. Z. 1988. "Gravity-Induced Stresses in Stratified Rock Masses," *Rock Mechanics and Rock Engineering*, 21: 1-20.

**American Society of Civil Engineers 1991**

American Society of Civil Engineers. 1991. "Avoiding and Resolving Disputes During Construction."

**American Society of Civil Engineers 1993**

American Society of Civil Engineers. 1993. "Steel Penstocks," Manual on Engineering Practice No. 79, New York.

**American Society of Civil Engineers 1994**

American Society of Civil Engineers. 1994. "Avoiding and Resolving Disputes During Construction," ASCE Technical Committee on Contracting Practices of the Underground Technology Research Council, ASCE, New York.

**Amstutz 1970**

Amstutz, I. E. 1970. "Buckling of Pressure-Shafts and Tunnel Linings," *Water Power*.

**Anderson and Richards 1987**

Anderson, M. G., and Richards, K. S. 1987. *Slope Stability - Geotechnical Engineering and Geomorphology*. John Wiley and Sons, New York.

**Andreis and Valent 1993**

Andreis, I., and Valent, G. 1993. "Yindaruqin Irrigation Project: High Speed Tunnelling in China," RETC Proceedings: 383-399.

**Annett and Stewart 1991**

Annett, M. F., and Stewart, J. 1991. "Development of Grouting Methods for Channel Tunnel United Kingdom Segmental Liner," *Tunnelling '91*: 173-179.

**Anonymous 1977**

Anonymous. 1977. "Precast Segments Line Bored Tunnel," *California Builder & Engineer*, September. (Buckskin Mt. Project, Arizona)

**Anonymous 1980**

Anonymous. 1980. "Precast Liner Keeps Diversion Tunnel on Track," *Highway & Heavy Construction*, June. (Park River Diversion Tunnel, Hartford, Connecticut)

**Aristorenius 1992**

Aristorenius, G. 1992. "Time-Dependent Behavior of Tunnels Excavated in Shale," Ph.D. dissertation, Department of Civil Engineering, Massachusetts Institute of Technology, Cambridge, MA: 337.

**ASHRAE Handbook 1989**

ASHRAE Handbook. 1989. Fundamentals I-P Edition, American Society of Heating Refrigeration and Air Conditioning Engineers, Inc.

**ASME Boiler and Pressure Vessel Code**

ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, Pressure Vessels.

**Association Française des Travaux en Souterrain 1991**

Association Française des Travaux en Souterrain. 1991. "Recommendations on Grouting for Underground Works," *Tunnelling and Underground Space Technology*, Vol. 6, No. 4: 383-462.

**ASTM C 1240**

ASTM C 1240 Standard Specification for Silica Fume for Use in Hydraulic Cement Concrete and Mortar.

**ASTM A 820**

ASTM A 820 Standard Specification for Steel Fibers for Steel Fiber-Reinforced Concrete.

**ASTM C 1116-91**

ASTM C 1116-91 Standard Specification for Fiber-Reinforced Concrete and Shotcrete.

**ASTM C 1018-92**

ASTM C 1018-92 Standard Test Method for Flexural Toughness and First-Crack Strength of Fiber-Reinforced Concrete.

**Bamford 1984**

Bamford, W. E. 1984. "Rock Test Indices Are Being Successfully Correlated with Tunnel Boring Machine Performance," Proceedings, 5th Australian Tunnelling Conference, Melbourne, October, Vol. 2: 19-22.

**Barton 1988**

Barton, N. 1988. "Rock Mass Classification and Tunnel Reinforcement Selection Using the Q-System," ASTM STP 984, Rock Classification Systems for Engineering Purposes.

**Barton, Lien, and Lunde 1974**

Barton, N., Lien, R., and Lunde, J. 1974. "Engineering Classification of Rock Masses for the Design of Tunnel Support," *Rock Mechanics*, Vol. 6, No. 4.

**Bathe 1982**

Bathe, K-J. 1982. *Finite Element Procedures in Engineering Analysis*. Prentice-Hall: 735.

**Beavis 1985**

Beavis, F. C. 1985. *Engineering Geology*. Blackwell Scientific Publications.

**Beldwald 1992**

Beldwald, P. 1992. "A Contribution to the Design of Tunnels in Argillaceous Rock," Ph.D. dissertation, Department of Civil Engineering, Massachusetts Institute of Technology, Cambridge, MA: 427.

**Berge, Wang, and Bonner**

Berge, P. A., Wang, H. F., and Bonner, B. P. 1993. "Pore Pressure Buildup Coefficient in Synthetic and Natural Sandstones," *Int. J. Rock Mech. Min. Sci. & Geomech.*, Abstr., Vol. 30, No. 7: 1135-1141.

**Bieniawski 1979**

Bieniawski, Z. T. 1979. "The Geomechanics Classification in Rock Engineering Applications," Proceedings, 4th International Congress on Rock Mechanics, ISRM, Montreux. A. A. Balkema, Rotterdam, Vol. 2: 41-48.

**Blaster's Handbook 1980**

Blaster's Handbook, 16th ed. 1980. E. I. duPont de Nemours, Wilmington, DE. (Later editions may be available)

**Brekke and Ripley 1993**

Brekke, T. L., and Ripley, B. D. 1993. "Design of Pressure Tunnels and Shafts," Chapter 14 of *Comprehensive Rock Engineering* - Vol. 2, J. A. Hudson, ed.: 349-369.

**Brown 1981**

Brown, E. T. 1981. "Rock Characterization Testing and Monitoring," ISRM Suggested Methods, published for the Commission on Testing Methods, International Society for Rock Mechanics by Pergamon Press.

**Brown, Bray, Ladanyi, and Hoek 1983**

Brown, E. T., Bray, J. W., Ladanyi, B., and Hoek, E. 1983. "Ground Response Curves for Rock Tunnels, Journal of Geotechnical Engineering," Vol. 109, No. 1, American Society of Civil Engineering.

**Cassinelli, Cina, Innaurato, Mancini, Smapaolo 1982**

Cassinelli, F., Cina, S., Innaurato, N., Mancini, R., and Smapaolo, A. 1982. "Power Consumption and Metal Wear in Tunnel Boring Machines: Analysis of Tunnel-Boring Operations in Hard Rock," Proceedings, Tunnelling '82, London, IMM: 73-81.

**Chabannes 1982**

Chabannes, C. R. 1982. "An Evaluation of the Time-Dependent Behavior of Solution Mined Caverns in Salt for the Storage of Natural Gas," M.S. thesis, Pennsylvania State University.

**Cheng, Abousleiman, and Roegiers 1993**

Cheng, A. H-D., Abousleiman, Y., and Roegiers, J. C. 1993. "Review of Some Poroelastic Effects in Rock Mechanics," *Int. J. Rock Mech. Min. Sci. & Geomech.*, Abstr., Vol. 30, No. 7: 1119-1126.

**Clayton, Simons, and Matthews 1982**

Clayton, C. R. I., Simons, N. E., and Matthews, H. C. 1982. *Site Investigation, A Handbook for Engineers*, Halstead Press.

**Critchfield 1985**

Critchfield, J. W. 1985. "Tunneling in Gassy Ground," Proceedings, RETC, New York, AIME: 441-461.

**Cundall 1976**

Cundall, P. A. 1976. "Explicit Finite Difference Methods in Geomechanics, Numerical Methods in Engineering," Proceedings of the EF Conference on Numerical Methods in Geomechanics, Blacksburg, Virginia. Vol. 1: 132-150.

**Cundall and Hart 1993**

Cundall, P. A., and Hart, R. D. 1993. "Numerical Modeling of Discontinua," *Comprehensive Rock Engineering*, Vol. 2, J. A. Hudson, ed., Pergamon Press: 231-243.

**Deere 1968**

Deere, D. U. 1968. "Geologic Considerations," Chapter 1 of *Rock Mechanics in Engineering Practice*, K. G. Staggs and O. C. Zienkiewicz, ed., Wiley, New York.

**Deere and Deere 1988**

Deere, D. U., and Deere, D. W. 1988. "The Rock Quality Designation (RQD) Index in Practice, in Rock Classification Systems for Engineering Purposes," L. Kirkaldie, ed., ASTM 1984.

**Deere, Hendron, Patton, and Cording 1967**

Deere, D. U., Hendron, A. J., Patton, F. D., and Cording, E. J. 1967. "Design of Surface and Near-Surface Construction in Rock, in Failure and Breakage of Rock," C. Fairhurst, ed., Society of Mining Engineers of AIME, New York.

**Deere, Peck, Monsees, and Schmidt 1969**

Deere, D. U., Peck, R. B., Monsees, J. E., and Schmidt, B. 1969. "Design of Tunnel Liners and Support Systems," Report to UMTA, DOT, available through NTIS.

**Deere, Peck, Parker, Monsees, and Schmidt 1970**

Deere, D. U., Peck, R. B., Parker, H. W., Monsees, J. E., and Schmidt, B. 1970. "Design of Tunnel Support Systems," Highway Res. Rec. No. 339: 26-33.

**Dolcini, Grandori, and Marconi 1990**

Dolcini, G., Grandori, R., and Marconi, M. 1990. "Water Supply Revamp for Bogota," *Tunnels & Tunnelling*, September, 22(9): 33-38. (Los Rosales Water Tunnel)

**Dowding 1985**

Dowding, C. H. 1985. *Blast Vibration Monitoring and Control*, Prentice Hall.

**Dunnicliff 1988**

Dunnicliff, J. 1988. *Geotechnical Instrumentation for Monitoring Field Performance*, Wiley, New York: 577.

**Electric Power Research Institute (EPRI) 1987**

Electric Power Research Institute (EPRI). 1987. "Design Guidelines for Pressure Tunnels and Shafts," Palo Alto, California.

**Engels, Cahill, and Blackey 1981**

Engels, J. G., Cahill, J. T., and Blackey, E. A., Jr. 1981. "Geotechnical Performance of a Large Machine-Bored Precast Concrete Lined Tunnel," 1981 RETC Proceedings: 1510-1533. (Park River Diversion Tunnel, Hartford, Connecticut)

**Eusebio, Grasso, Mahtab, and Innaurato 1991**

Eusebio, A., Grasso, P., Mahtab, A., and Innaurato, A. 1991. "Rock Characterization for Selection of a TBM for a Railway Tunnel near Genova, Italy," Proceedings, Int. Symp. on Mine Mech. and Automation, CSM/USBM, Vol. 1: 4-25 to 4-35.

**Farmer 1968**

Farmer, I. W. 1968. *Engineering Properties of Rocks*, Spon Ltd.

**Farmer and Glossop 1980**

Farmer, I. W., and Glossop, N. H. 1980. "Mechanics of Disc Cutter Penetration," *Tunnels and Tunnelling*, Vol. 12, No. 6: 22-25.

**Fernandez and Alvarez 1994**

Fernandez, G., and Alvarez, T. A. 1994. "Seepage-Induced Effective Stresses and Water Pressures around Pressure Tunnels," *Journal of Geotechnical Engineering*, American Society of Civil Engineers.

**FIP 1986**

FIP. 1986. *Corrosion and Corrosion Protection of Prestressed Ground Anchorages*, Thomas Telford Ltd.

**Flügge 1960**

Flügge, W. 1960. *Stresses in Shells*, Springer-Verlag, Berlin.

**Goodman and Shi 1985**

Goodman, R. E., and Shi, G. H. 1985. *Block Theory and its Application to Rock Engineering*, Prentice-Hall, New Jersey.

**Graham 1976**

Graham, P. C. 1976. "Rock Exploration for Machine Manufacturers," in Exploration for Rock Engineering, Proceedings of the Symposium, Johannesburg, Z. T. Bieniawski, ed., Balkema, Vol. 1: 173-180.

**Grandori, Dolcini, and Antonini 1991**

Grandori, R., Dolcini, G., and Antonini, F. 1991. "The Rosales Water Tunnel in Bogota," Proceedings, Rapid Excavation and Tunneling Conference, Seattle: 561-581.

**Groseclose and Schoeman 1987**

Groseclose, W. R., and Schoeman, K. D. 1987. "Precast Segment Lining for Buckskin Mountains Water Conveyance Tunnel," R. J. Robbins and R. J. Conlon, ed., 1976 RETC Proceedings, Las Vegas, Nevada: 448-463.

**Hartmann, Mutmanský, and Wang 1982**

Hartmann, H. L., Mutmanský, J. M., and Wang, Y. I., ed. 1982. *Mine Ventilation and Air Conditioning*, 2nd. Ed., Wiley.

**Hashash and Cook 1994**

Hashash, Y. M. A., and Cook, R. F. 1994. "Effective Stress Analysis of Supercollider Tunnels," 8th Int. Conf. Assoc. Comp. Methods and Advances in Rock Mechanics, Morgantown, West Virginia.

**Hatzor and Goodman 1993**

Hatzor, Y., and Goodman, R. E. 1993. "Determination of the 'Design Block' for Tunnel Supports in Highly Jointed Rock," *Comprehensive Rock Engineering*, Vol. 2, J. A. Hudson, ed., Pergamon Press: 263-292.

**Hemphill 1990**

Hemphill, G. B. 1990. "Mechanical Excavation System: Selection, Design, and Performance in Weak Rock," Ph.D. dissertation, University of Idaho, Moscow: 361.

**Hocking 1978**

Hocking, G. 1978. "Stresses Around Tunnel Intersections," in *Computer Methods in Tunnel Design*, Institution of Civil Engineers: 41-59.

**Hoek and Brown 1980**

Hoek, E., and Brown, E. T. 1980. "Underground Excavations in Rock," *Institution of Mining and Metallurgy*, London, England: 527.

**Hoek and Brown 1988**

Hoek, E., and Brown, E. T. 1988. "The Hoek-Brown Failure Criterion - A 1988 Update," Proceedings, 15th Canadian Rock Mech. Symposium, Toronto: 3-38.

**Hughes 1986**

Hughes, H. M. 1986. "The Relative Cuttability of Coal Measures Rock," *Mining Science and Technology*, Vol. 3: 95-109.

**Huval 1969**

Huval, C. J. 1969. "Hydraulic Design of Unlined Rock Tunnels," *Journal of the Hydraulics Division*, Proceedings of the American Society of Civil Engineers, Vol. HY4.

**ISRM 1982**

ISRM. 1982. International Society for Rock Mechanics, ISRM Suggested Methods: Rock Characterization, Testing and Monitoring (E. T. Brown, ed.), Pergamon Press, Oxford.

**ITASCA 1992**

ITASCA. 1992. *Fast Lagrangian Analysis of Continua*, Version 3.2, User's Manual, Vol. III.

**Jacobsen 1974**

Jacobsen, S. 1974. "Buckling of Circular Rings and Cylindrical Tubes under External Pressure," *Water Power*.

**Jaeger 1964**

Jaeger, J. C. 1964. *Elasticity, Fracture and Flow with Engineering and Geological Applications*, Chapman & Hall, London.

**Judd and Huber 1961**

Judd, W. R., and Huber, C. 1961. *Correlation of Rock Properties by Statistical Means*, International Society on Mining Research, G. Clarke, ed., Pergamon, Oxford.

**Korbin 1979**

Korbin, G. E. 1979. "Factors Influencing the Performance of Full-Face Hard Rock Tunnel Boring Machines," Report to USDOT, UMTA-CA-06-0122-79-1.

**Lama and Vutukuri 1978**

Lama, R. D., and Vutukuri, V. S. 1978. *Handbook on Mechanical Properties of Rocks*, Vol. II, Trans Tech Publ., Switzerland.

**Lang 1961**

Lang, T. A. 1961. "Theory and Practice of Rockbolting," Trans. Amer. Inst. Mining Engrs., Vol 220: 333-348.

**Lang and Bischoff 1982**

Lang, T. A., and Bischoff, J. A. 1982. "Stabilization of Rock Excavations Using Rock Reinforcement," Proceedings, 23rd U.S. Symposium on Rock Mechanics, AIME, New York: 935-944.

**Langefors and Kihlstrom 1978**

Langefors, V., and Kihlstrom, B. 1978. *The Modern Technique of Rock Blasting*, Halsted Press, a division of Wiley.

**Lauffer 1958**

Lauffer, H. 1958. *Gebirgsklassifizierung für den Stollenbau, Geologic und Bauwesen*, Vol. 24, No. 1: 46-51.

**Little 1989**

Little, T. E. 1989. "Construction and Performance of a Large Diameter Test Chamber in Shale," Proceedings, International Tunnelling Association Meeting, Toronto: 869-876.

**Lo and Yuen 1981**

Lo, A. Y., and Yuen, C. M. K. 1981. "Design of Tunnel Lining in Rock for Longterm Time Effect," *Can. Geotech. J.* Vol. 18: 24-39.

**Maidl and Handke 1993**

Maidl, B., and Handke, D. 1993. "Overcoming a Collapse in the Karawanken Tunnel," *Tunnels and Tunnelling*: 30-32.

**McFeat-Smith and Askildsrud 1993**

McFeat-Smith, I., and Askildsrud, O. G. 1993. "Tunnel Boring Machine in Hong Kong," RETC Proceedings: 401-413.

**Mindlin 1939**

Mindlin, R. D. 1939. *Stress Distribution Around a Tunnel*, American Society of Civil Engineers, New York.

**Moore 1960**

Moore, E. T. 1960. "Designing Steel Tunnel Liners for Hydro Plants," *Hydro Review*.

**Morgan 1991**

Morgan, D. R. 1991. "Steel Fiber Reinforced Shotcrete for Support of Underground Openings in Canada," *Concrete International*, Nov: 56-64.

**National Association of Corrosion Engineers International 1988**

National Association of Corrosion Engineers International. 1988. Recommended Practice, Control of External Corrosion of Submerged Metallic Piping Systems (RP-01-69).

**Nelson 1993**

Nelson, P. P. 1993. "TBM Performance With Reference to Rock Properties," Chapter 10, Vol. 4, *Comprehensive Rock Engineering*, J. A. Hudson, ed., Pergamon Press: 261-291.

**Nelson 1983**

Nelson, P. P. 1983. "Tunnel Boring Machine Performance in Sedimentary Rocks," Ph.D. dissertation, Cornell University: 448.

**NTH (Norwegian Institute of Technology) 1988**

NTH (Norwegian Institute of Technology). 1988. "Hard Rock Tunnel Boring," Project Report 1-88, Trondheim, Norway: 183.

**Obert and Duvall 1967**

Obert, L., and Duvall, W. I. 1967. *Rock Mechanics and the Design of Structures in Rock*, John Wiley and Sons.

**Oriard 1982**

Oriard, L. L. 1982. *Blasting Effects and Their Control, in Underground Mining Methods Handbook*, Hustrulid, ed., AIME, Denver, CO.

**Ozdemir and Wang 1979**

Ozdemir, L., and Wang, F. 1979. "Mechanical Tunnel Boring, Prediction, and Machine Design," Final Report NSF/RA-790161: 204.

**Pan and Amadei 1993**

Pan, E., and Amadei, B. 1993. "Gravitational Stresses in Long Asymmetric Ridges and Valleys in Anisotropic Rock," *Int. J. Rock Mech. Min. Sci. & Geomech.*, Abstr., Vol. 30 No. 7: 1005-1008.

**Pariseau 1993**

Pariseau, W. G. 1993. "Equivalent Properties of a Jointed Biot Material," *Int. J. Rock Mech. Min. Sci. & Geomech.*, Abstr., Vol. 30, No. 7: 1151-1157.

**Peck 1973**

Peck, R. B. 1973. *Influence of Nontechnical Factors on the Quality of Embankment Dams, Embankment Dam Engineering, Casagrande Vol.*, Wiley, New York: 201-208. Reprinted in *Judgment in Geotechnical Engineering: The Professional Legacy of Ralph B. Peck*, J. Dunnicliff and D. U. Deere, ed., 1984. Wiley, New York: 137-144.

**Peck 1984**

Peck, R. B. 1984. "Observation and Instrumentation, Some Elementary Considerations," Postscript, in *Judgment in Geotechnical Engineering: The Professional Legacy of Ralph B. Peck*, J. Dunnicliff and D. U. Deere, ed., 1984. Wiley, New York: 128-130.

**Peck 1988**

Peck, R. B. 1988. Foreword to *Geotechnical Instrumentation for Monitoring Field Performance*, by John Dunnicliff, Wiley, New York: vii-ix.

**Pender 1980**

Pender, M. J. 1980. "Elastic Solutions for a Deep Circular Tunnel," *Geotechnique*.

**Persson, Holmberg, and Lee 1993**

Persson, P. A., Holmberg, R., and Lee, J. 1993. *Rock Blasting and Explosives Engineering*, CRC Press.

**Pona, Civil Consulting, Inc.**

Pona, Civil Consulting, Inc., Sacramento, CA - MathCad Applications for Determination of the Tunnel Steel Liner Critical Buckling Pressure.

**Procter and White 1946**

Procter, R. V., and White, T. L. 1946. *Rock Tunneling with Steel Supports*, The Commercial Shearing and Stamping Company, Ohio 1946, revised 1968, copyright 1946 by The Commercial Shearing and Stamping Company.

**Riley 1964**

Riley, W. F. 1964. "Stresses at Tunnel Intersections," *Journal of the Mechanics Division*, Proceedings of the American Society of Civil Engineers.

**Roark**

Roark, J. R. *Formulas for Stress and Strain*, Fourth Edition, McGraw-Hill Co.

**Roxborough and Phillips 1975**

Roxborough, F. F., and Phillips, H. R. 1975. "Rock Excavation by Disc Cutter," *Int. J. Rock Mech. Min. Sci.*, Vol. 12, No. 12: 361-366.

**Salencon 1969**

Salencon. 1969. "Contraction Quasi-Statique d'une Cavité à Symétrie, Sphérique ou Cylindrique dans un Milieu Elastoplastique," *Annales des Ponts et Chaussées*, Vol. 4: 231-236.

**Sanchez-Trejo 1985**

Sanchez-Trejo, R. 1985. Comparative Solutions of Shotcrete and Conventional Concrete Permanent Linings for Water Supply Tunnels, Shotcrete for Underground Support IV, Selected Papers from Conference, held in Paipa, Colombia, September 5-10, 1982, Published by Engineering Foundation, New York.

**Schmitter and Morens 1983**

Schmitter, J., and Morens, O. 1983. "Tunnel con Deformaciones Excesivas," The Panamerican Conference on Soil Mech., Vancouver, B.C.

**Schoeman 1987**

Schoeman, K. D. 1987. "Buckskin Mountains Tunnel and Stillwater Tunnel: Developments in Technology." *Tunneling and Underground Transport. Future Developments in Technology, Economics, and Policy*. F. P. Davidson, ed., Elsevier, New York: 92-108.

**Schwartz, Azzouz, and Einstein 1980**

Schwartz, C. W., Azzouz, A. S., and Einstein, H. H. 1980. "Improved Design of Tunnel Supports," U.S. Department of Transportation, Report No. UMTA-MA-06-0100-80-5.

**Serafin and Pereira 1983**

Serafin, J. L., and Pereira, J. P. 1983. "Consideration of the Geomechanics Classification of Bieniawski," *Proceedings, Int. Symp. on Exploration for Rock Engineering*.

**Sharp and Ozdemir 1991**

Sharp, W., and L. Ozdemir. 1991. "Computer Modelling for TBM Performance Prediction and Optimization," *Proceedings, Int. Symp. on Mine Mechanization and Automation, CSM/USBM*, Vol. 1: 4-57 to 4-66.

**Siskind, Stagg, Kopp, and Dowding 1980**

Siskind, D. E., Stagg, M. S., Kopp, J. W., and Dowding, C. H. 1980. "Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting," U.S. Bureau of Mines, Report of Investigation 8507.

**Skinner 1988**

Skinner, E. H. 1988. "A Ground Support Prediction Concept: The Rock Structure Rating (RSR) Model," *ASTM STP 984*, L. Kirkaldie, ed.

**Sloan 1981**

Sloan, S. 1981. "Numerical Analysis of Incompressible and Plastic Solids Using Finite Elements," Ph.D. dissertation, Trinity College, Cambridge University, United Kingdom.

**SME Mining Engineering Handbook 1992**

SME Mining Engineering Handbook. 1992. Second Edition. H. L. Hartman, Senior Editor, Society of Mining Engineers.

**State of California, Department of Industrial Relations. Revised 1973**

*State of California, Department of Industrial Relations*. Revised 1973. Subchapter 20, "Tunnel Safety Orders."

**Stillborg 1986**

Stillborg, B. 1986. *Professional Users Handbook for Rock Bolting*. TransTech Publications, Atlas Copco.

**Tarkoy 1987**

Tarkoy, P. J. 1987. "Practical Geotechnical and Engineering Properties for Tunnel-Boring Machine Performance Analysis and Prediction," *Transportation Research Record*, 1087, Transportation Research Board: 62-78.

**Terzaghi 1946**

Terzaghi, K. 1946. "Rock Defects and Loads on Tunnel Support," *Rock Tunneling with Steel Support*, R. V. Proctor and T. White, Commercial Shearing Co., Youngstown, OH: 15-99.

**Terzaghi and Richart 1952**

Terzaghi, K., and Richart, F. E. 1952. "Stresses in Rock About Cavities, *Geotechnique*, Vol. 3.

**Timoshenko 1936**

Timoshenko, S. 1936. *Theory of Elastic Stability*, McGraw-Hill Book Co., New York.

**Unal 1983**

Unal, E. 1983. "Design guidelines and roof control standards for coal mine roofs," Ph.D. thesis, Pennsylvania State University.

**USACE 1982**

USACE. 1982. "Proceedings of the Third International Symposium on Ground Freezing, "U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory, Hanover, NH.

**USNCTT (U.S. National Committee on Tunneling Technology) 1984**

USNCTT (U.S. National Committee on Tunneling Technology). 1984. *Geotechnical Investigations for Underground Projects*, National Academy Press, Washington, DC (2 volumes).

**Vaughan 1956**

Vaughan, E. W. 1956. "Steel Linings for Pressure Shafts in Solid Rock," Paper 949, Journal Power Division, Proceedings of the ASCE.

**Venturini 1983**

Venturini, W. S. 1983. *Boundary Elements Methods in Geomechanics, Lecture Notes in Engineering*, 4. C. A. Brebia and S. A. Orszag, ed., Springer-Verlag, New York.

**Wang 1985**

Wang, Jing-Ming (translated by C. Wu and J. J. Litehiser). 1985. "The Distribution of Earthquake Damage to Underground Facilities During the 1976 Tang-Shan Earthquake," *Earthquake Spectra*, Vol. 1, No. 4: 741-757.

**Warpinski and Teufel 1993**

Warpinski, N. R., and L. W. Teufel. 1993. "Laboratory Measurements of the Effective-Stress Law for Carbonate Rocks under Deformation," *Int. J. Rock Mech. Min. Sci. & Geomech.*, Abstr., Vol. 30, No. 7: 1169-1172.

**West 1987**

West, G. 1987. "Channel Tunnel Meeting: An Engineering Geological and Geotechnical Overview," *Tunnels and Tunnelling*: 47-50.

**Westfall 1989**

Westfall, D. E. 1989. "Friction Losses for Use in the Design of Hydraulic Conveyance Tunnels," Proceedings, Second International Conference on Hydraulic Structures, Fort Collins, Colorado.

**Whittle 1987**

Whittle, A. J. 1987. Sc.D. dissertation, Department of Civil Engineering, Massachusetts Institute of Technology, Cambridge, MA: 427.

**Wickham, Tiedemann, and Skinner 1972**

Wickham, G. E., Tiedemann, H. R., and Skinner, E. H. 1972. "Support Determinations Based on Geologic Predictions," Proceedings, First Rapid Excavation and Tunneling Conference, Chicago, Vol I.

**Wickham, Tiedemann, and Skinner 1974**

Wickham, G. E., Tiedemann, H. R., and Skinner, E. H. 1974. "Ground Support Prediction Model - RSR Concept," Proceedings, RETC, AIME, New York: 691-707.

**Winderburg and Trilling 1934**

Winderburg, D. F., and Trilling, C. 1934. "Collapse by Instability of Thin Cylindrical Shells Under External Pressure," Transactions, ASME.

**Zhu and Wang 1993**

Zhu, W., and Wang, P. 1993. "Finite Element Analysis of Jointed Rock Masses and Engineering Application," *Int. J. Rock Mech. Min. Sci. & Geomech.*, Abstr., Vol. 30 No. 5: 537-544.

**Zick and Ofiara 1989**

Zick, P., and Ofiara, D. 1989. "Selection of PCC Liner Segments and Compatible TBM for the San Antonio Tunnels," RETC Proceedings: 385-398.